# PROFICIENCY TESTING REPORT

***ISHTM-AIIMS EXTERNAL QUALITY ASSURANCE PROGRAMME***

NABL accredited program as per ISO/IEC 17043:2010 standard

Organized By Department of Hematology, AIIMS, New Delhi-110029

PC-1002

*Duration of stability testing - minimum upto 8 days at ambient temp. after dispatch of specimens*

**EQAP CODE No. :** 2075 **Distribution No.:** 163-E **Month/Year:** March/2024

**Instrument ID:** NIHON KOHDEN **Model Name.:** MEK6510 **Serial No.:** 7468

**Name & Contact No. of PT Co-ordinator:** Dr. Manoranjan Mahapatra ( Prof. & Head), Hematology, AIIMS, Delhi, Tel: 9013085730 , E-Mail : info@ishtmaiimseqap.com

**Date of issue & status of the report:** 06-05-2024[Final].

## CBC and Retic Assessment

| Test Parameters | S.No. | | | Among Lab (Accuracy Testing) | | | | Within Lab (Precision Testing) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Your Result 1 | Your Result 2 | Your Results Sum of 2 Value | Consensus result sum of 2 values (Assigned Value) | Uncertainty of Assigned Values | Z Score | Yours Results Diff. of 2 Values | Consensus Result Diff. of 2 values (Assigned Value) | Uncertainty of Assigned Values | Z Score |
| WBC x$10^3$/µl | 1 | 5.7 | 5.7 | 11.4 | 11.03 | 0.031 | **0.42** | 0 | 0.1 | 0.006 | **-0.84** |
| RBC x$10^6$/µl | 1 | 3.71 | 3.67 | 7.38 | 7.38 | 0.009 | **0.02** | 0.04 | 0.03 | 0.002 | **0.34** |
| Hb g/dl | 1 | 13.4 | 13.3 | 26.7 | 25.5 | 0.027 | **1.80** | 0.1 | 0.1 | 0.007 | **0.00** |
| HCT% | 1 | 40.1 | 39.6 | 79.7 | 78.7 | 0.141 | **0.23** | 0.5 | 0.4 | 0.024 | **0.27** |
| MCV-fl | 1 | 108 | 108 | 216 | 212.9 | 0.298 | **0.36** | 0 | 0.3 | 0.020 | **-0.81** |
| MCH-Pg | 1 | 36.5 | 35.8 | 72.3 | 69.3 | 0.087 | **1.32** | 0.7 | 0.3 | 0.018 | **1.46** |
| MCHC-g/dl | 1 | 33.8 | 33.2 | 67 | 64.75 | 0.119 | **0.65** | 0.6 | 0.3 | 0.020 | **1.01** |
| Plt. x$10^3$/µl | 1 | 136 | 135 | 271 | 319 | 1.365 | **-1.27** | 1 | 4 | 0.259 | **-0.67** |
| Retic % | 2 | | | | | | | | | | |

**P.S . Assesment**

| | | YOUR REPORT | CONSENSUS REPORT |
|---|---|---|---|
| DLC% | 3 | Nrbcs= , Poly= L=, E=, Mono/Promono= , B1= P.M.=, Mye=, Meta=, Other= | Blast: 70-88, Poly: 5-9, Lympho: 3-8, Myelo/Mono/Promyelo/Meta/Eos/Baso: 0-5 |
| RBC Morphology | 3 | | Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Mild: Microcytosis, Poikilocytosis |
| Diagnosis | 3 | | Acute Myeloid Leukemia(AML) |

## COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test parameters | S.No. | Total participants covered in the current dist. 163--E | Total No. responded | % of Labs with Z Score 0-2 | | % of Labs with Z Score 2-3 | | % of Labs with Z Score >3 | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Among labs | Within lab | Among labs | Within lab | Among labs | Within lab |
| WBC $x10^3$/µl | 1 | 333 | 331 | 86.4 | 93.05 | 5.44 | 1.81 | 8.16 | 5.14 |
| RBC $x10^6$/µl | 1 | 333 | 333 | 89.19 | 93.99 | 6.91 | 2.7 | 3.9 | 3.31 |
| Hb g/dl | 1 | 333 | 333 | 87.39 | 90.39 | 6.91 | 4.5 | 5.7 | 5.11 |
| HCT% | 1 | 333 | 331 | 93.96 | 92.75 | 2.72 | 4.83 | 3.32 | 2.42 |
| MCV-fl | 1 | 333 | 330 | 91.82 | 92.73 | 5.45 | 2.73 | 2.73 | 4.54 |
| MCH-Pg | 1 | 333 | 330 | 89.7 | 88.48 | 6.06 | 4.24 | 4.24 | 7.28 |
| MCHC-g/dl | 1 | 333 | 330 | 92.42 | 88.48 | 4.55 | 4.24 | 3.03 | 7.28 |
| Plt. $x10^3$/µl | 1 | 333 | 331 | 91.54 | 93.35 | 6.34 | 3.02 | 2.12 | 3.63 |
| ReticCount% | 2 | 333 | 294 | 95.92 | 86.05 | 2.72 | 8.84 | 1.36 | 5.11 |
| PS Assessment | 3 | 333 | 289 | Satisfactory :95.5%, Borderline Sat. :4.20%, Unsatisfactory :0.30% | | | | | |

*Comments:

1). Among Lab (EQA) : PS Diagnosis not reported, Results acceptable.

2). Within Lab (IQA) : Precision acceptable.

**Note-1: EQA** (External Quality Assurance) : Your Performance among various of participating labs in PT, to determine the accuracy of your results.
**IQA** ( Internal Quality Assurance) : Your Performance of comparison of two consecutive measurement values within your lab to test the precision of your autoanalyzer.

**Note-2:** Z score among & within lab were calculated, as per to ISO/IEC 13528:2015 standard. Z score among lab (EQA)= (Your Result Sum of two values – Consensus Result sum of two values)/(Normalised IQR)
Z score within lab (IQA)= (Your Result Difference of two values – Consensus Result difference of two values)/(Normalised IQR)
IQR = Quartile 3 - Quartile 1 of participant data, Normalised IQR = 0.7413 x IQR

**Note-3:** Z score 0 to ±2: Acceptable, Z score ±2 to ±3 :Warning Signal, Z score > ±3 : Unacceptable [As per ISO/IEC 13528:2015 standard]

**Note-4:** Z score value between"0 to ±2" are texted in green colour. Z score value between"±2 to ±3" are texted in orange colour. Z score value > ±3 are texted in red colour.

**Note-5:** Homogeneity and stability testing of PT sample were done as per ISO 13528:2015 standard. To pass homogeneity test, between sample SD (Ss) should be smaller than the check value (0.3*SDPA). To pass the stability test, average difference in measurement values of first and last day sample ($\bar{x}$-$\bar{y}$) should be smaller than the check value (0.3*SDPA).

**Note-6:** ISHTM-AIIMS-EQAP does not subcontract any task of its scheme

**Note-7:** Participants are free to use methods/analyzer of their own choice.

**Note-8:** Proficiency testing (PT ) samples are sent quarterly to each participant.

**Note-9:** All the necessary details regarding design and implementation of PT, are provided in the instruction sheet as well as on programme's website www.ishtmaiimseqap.com.

**Note 10:** Reports are kept confidential.

Report authorized by,

Dr. Manoranjan Mahapatra ( Prof. & Head)
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----------End Of Report----------